

## OFDM RECEIVER AND ITS FREQUENCY OFFSET COMPENSATION METHOD

Publication number: JP2001036500 (A)

Publication date: 2001-02-09

Inventor(s): IMAMURA KIMIHIKO; MATSUSHITA YOSHITERU; TSUBOI HIDEKAZU; YOSHIMOTO TAKASHI +

Applicant(s): SHARP KK + (SHARP CORP)

Classification:

- international: H04J11/00; H04L7/00; H04L27/26; H04J11/00; H04L7/00; H04L27/26; (IPC1-7): H04J11/00; H04L7/00

- European: H04L27/26M5C3

Application number: JP19990248666 19990902

Priority number(s): JP19990248666 19990902; JP19990136639 19990518

### Also published as:

JP3486576 (B2)

EP1179901 (A1)

EP1179901 (B1)

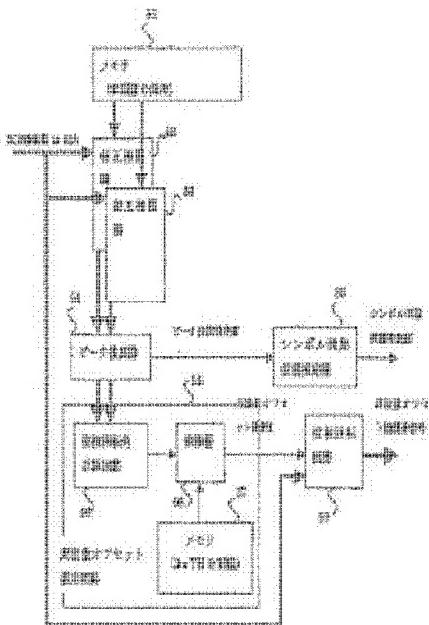
US7149266 (B1)

WO0070802 (A1)

[more >>](#)

### Abstract of JP 2001036500 (A)

PROBLEM TO BE SOLVED: To provide an OFDM receiver where a frequency offset compensation range can be extended. SOLUTION: The OFDM receiver that receives and demodulates an OFDM signal with a start symbol added thereto prior to a data symbol is provided with a memory means 51 that stores N kinds (N is a natural number being 2 or over) of reference signals equivalent to part in the start symbol, cross-correlation means 52, 53 that calculate a cross-correlation between the OFDM signal and N kinds of the reference signals, a peak position detection means 54 that detects a peak position of N-sets of the cross-correlation values obtained by the cross-correlation means 52, 53, and a frequency offset estimate means 55 that estimates a frequency offset on the basis of the cross-correlation at N-sets of the peak positions.; The OFDM receiver compensates the frequency offset of the OFDM signal on the basis of the frequency offset estimated by the frequency offset estimate means 55.



Data supplied from the **espacenet** database — Worldwide